

## **A DIGITAL IMPLEMENTATION OF MULTI-CHANNEL DEMODULATORS**

### **ABSTRACT OF THE DISCLOSURE**

A method and circuitry for implementing digital multi-channel demodulation  
5 circuits. More particularly, embodiments of the present invention provide a digital multi-  
channel demodulator circuit. The demodulator includes a frequency-block down-converter  
that receives a multi-channel analog RF signal and shifts the multi-channel analog RF signal  
to a lower frequency band. An ADC receives the multi-channel analog RF signal from the  
frequency-block down-converter and converts the multi-channel analog RF signal to a multi-  
10 channel digital RF signal. A digital channel demultiplexer receives the multi-channel digital  
RF signal from the ADC and demultiplexes the multi-channel digital RF signal into separate  
digital RF channels.

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